REMARKS

This is intended as a full and complete response to the Office Action dated August 11, 2006, having a shortened statutory period for response set to expire on November 11, 2006. Claims 42, 45-62 and 65-67 are pending in the application. Please reconsider the claims pending in the application for reasons discussed below.

Claim Rejections Under 35 U.S.C. § 103(a)

The Examiner rejected claims 42, 45, 46, 49 and 67 as being obvious over *Simpson* '532 in view of *Clark* '630 and the pre-grant publication '704 to *Jackson* and further in view of *Bergey*. Applicants respectfully traverse the rejection.

There is no motivation to combine *Clark*, *Jackson* and/or *Bergey* with the *Simpson* reference. The *Simpson* reference is directed to downhole tubular expansion accomplished by outward plastic deformation which expands and shapes the pipe to a desired profile. As admitted by the Examiner, *Simpson* does not teach: a bearing portion between the rolling body and the piston that rotates with the roller, the bearing member is matable to the roller to prevent relative rotation between the two, a cooling channel disposed between bearing members, or a sleeve member disposed between the roller and the shaft. To overcome the multiple shortcomings of *Simpson*, the Examiner relies on two references, *Jackson* and *Bergey,* which have nothing to do with oil well drilling and completion, and *Clark* which bears little resemblance and solves a completely different problem than the *Simpson* reference or the claimed invention. It is the applicants' position that no one facing the problem of excessive wear on an expander tool being used to circumferentially expand a pipe downhole would reasonably look to so many different and diverse sources for a solution.

The *Clark* reference teaches a device that is simply used to "reform" pipe that has collapsed downhole to its original diameter. There is no expansion of diameter of the pipe in the *Clark* reference. The *Clark* reference does not teach plastically and circumferentially enlarging a pipe downhole. There is no motivation in the *Simpson* reference to look to the *Clark* reference in order to circumferentially enlarge a downhole pipe. The Examiner has simply used impermissible hindsight to combine two oil

industry references which solve completely different problems. "It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious." *In re Fritch,* 972 F/2d 1260, 23 USPQ 1780, 1784 (Fed. Cir. 1992). These references are completely unrelated to one another.

With the *Jackson* reference, the Examiner leaves the associated technology, the oil industry, and introduces a reference from the automotive industry. The Federal Circuit has stated that, "in order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker,* 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1447 (Fed. Cir. 1992). Therefore, "a reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem." *In re Clay*, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992). *Jackson* is not a reasonably pertinent reference. The *Jackson* reference is directed to vehicle torque converters. From *Jackson*, the Examiner borrows two plates that are keyed together and maintains that it would have been obvious for someone working in an oil tool environment and faced with a problem of radially induced forces in a wellbore to consider an automotive device, along with several other separate teachings, to rotationally fix a rotating roller to a bearing member and that the bearing member is matable to the roller to prevent relative rotation between the two bearing portions. There is no motivation in the *Simpson* reference to look to the *Jackson* reference, or the automotive industry in general, in order to solve a loading problem associated with a tubular expansion device. The Examiner has again used impermissible hindsight to combine two completely unrelated references, in combination with multiple other unrelated references, to render the claims obvious.

With the *Bergey* reference, the Examiner again leaves the associated technology, and introduces a reference for expanding the earth around broken sewer and water pipes. The *Bergey* reference is directed to a method and apparatus for relieving ground pressure surrounding pvc vent pipes which have been displaced from

T-fitting traps in sewers. The *Bergey* does not disclose plastically deforming the 4 inch pvc pipe. As shown in Figures 6-9 and described in the specification, the expander tool simply pushes pipe radially outward in order to push the earth away from the pipe. Once the earth is away from the pipe the, the expander tool may be removed in order to fix the tee fitting. The expander tool is never used beyond a depth of 10 feet. No one in the oil industry would look to the remediation method and apparatus of the *Bergey* reference for a solution to a loading problem associated with expanding a tubular in a wellbore. The Examiner has again used impermissible hindsight to combine two completely unrelated references, in combination with multiple other unrelated references, to render the claims obvious. Therefore, Applicants believe that claims 42, 45-49, and 67 are in condition for allowance.

Even if it were permissible to combine the references, the references, neither alone nor in combination, teach, show, or suggest the invention claimed. The Examiner relies upon *Simpson* to teach, among other things, a bearing at one end of a shaft and roller, the bearing being comparable to the "portion that remains stationary" in claim 42. The bearing 118 as shown in Figure 24 and described in the specification, is simply an integral part of the piston housing 120 and not a separate stationary portion of the bearing which is separate from the piston housing as recited in claim 42. Therefore, the references, neither alone nor in combination, teach, show, or suggest the portion of the bearing that remains stationary. Thus, Applicants believe that claims 42, 45-49, and 67 are in condition for allowance.

The Examiner then relies upon a washer 35 in *Clark* to teach the "portion" of the bearing that rotates with the roller as in claim 42. As admitted by the Examiner, the washer 35 of *Clark* is not fixed to the roller. The *Clark* reference does not specifically disclose the washer 35 rotates with the roller. Further, the simple washer arrangement taught by *Clark* would never be effective in the tool of the invention as the washer would never provide adequate protection to the other friction surfaces. Therefore, the references, neither alone nor in combination, teach, show, or suggest the portion of the bearing assembly that rotates. Thus, Applicants believe that claims 42, 45-49, and 67 are in condition for allowance.

Next, the Examiner borrows from the automotive reference, *Jackson*, to suggest a cooling channel disposed between the portions of a bearing assembly and that the bearing assembly includes a bearing profile in a downhole tubular expansion tool, as recited in claims 45 and 46, would be obvious based upon an oil groove formed between plates of a torque converter. As mentioned, the *Jackson* reference is totally inappropriate. Thus, Applicants believe that claims 45 and 46 are in condition for allowance.

The Examiner rejected claims 50-57 and 59-62, 65 and 66 as being unpatentable over *Simpson* '532 in view of *Clark* '630 and the pre-grant publication '704 to *Jackson*.

As discussed above, any combination of *Simpson* with *Clark* and *Jackson* is completely inappropriate. The reference, neither alone nor in combination, teach, show, or suggest the invention as recited in claims 50-57, 59-62, 65 and 66.

The Examiner rejected claims 47 and 48 as being unpatentable over *Simpson* '532 in view of *Clark* '630 and *Jackson* '704 and *Bergey* as applied to claim 46 above, and further in view of the pre-grant publication '769 to *Whang.* As stated above, Applicants believe that claim 42 is in condition for allowance and; therefore, claims 47 and 48 which depend therefrom are also in condition for allowance.

The Examiner rejected claim 58 as being unpatentable over *Simpson* '532 in view of *Clark* '630 and *Jackson* '704 as applied to claim 50 above, in further view of the WIPO document '728 to *Simpson et al.* As stated above, Applicants believe that claim 50 is in condition for allowance and therefore, claim 58 which depends therefrom is also in condition for allowance.

Conclusion

The references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed. Having addressed all issues set out in the office action, Applicants respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,

Jason C. Huang
Registration No. 46,222
PATTERSON & SHERIDAN, L.L.P.
3040 Post Oak Blvd. Suite 1500
Houston, TX 77056
Telephone: (713) 623-4844
Facsimile: (713) 623-4846
Attorney for Applicants